

Notice of Allowability

Application No.

10/766,291

Examiner

TRONG PHAN

Applicant(s)

HARRAND ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/27/06.
2. ☒ The allowed claim(s) is/are 1-11, 13-25 and 27-42.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 1106.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____ *Phan Trong*

TRONG PHAN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1: An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Andre M. Szuwalski, Reg. 35,701 on 10/27/06.

The application has been amended as follows:

Claim 13, lines 1-5, the phrase "A process for refreshing a dynamic random access memory comprising: continuously and dynamically measuring the retention time of all the memory cells of the memory; and regulating the refresh period of the memory based on the result of this measurement;" has been changed to --- The process according to Claim 1, ---.

Claim 27, lines 1-6, the phrase "A dynamic random access memory comprising: a dynamic random access memory; and a memory refresh circuit that operates to continuously and dynamically measure the retention time of all the memory cells of the memory; and to regulate the refresh period of the memory based on the result of this measurement;" has been changed to --- The device according to Claim 15 ---.

All the above changes have been made in order to place the case in condition for allowance.

2. The following is an examiner's statement of reasons for allowance:

The feature of "tagging the cells of the memory having a lower retention

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time as measured in the course of a measurement cycle and wherein regulating the refresh period of the memory cell comprises setting the refresh period in the course of a next measurement cycle of the tagged cells to be refresh more often than non-tagged cells of the memory” included in a process for refreshing a dynamic random access memory as specifically recited in combination in claims 1, 13-15 and 27-29 is the novelty of the claimed invention over prior art.

A process for refreshing a dynamic random access memory comprising all steps and desired function as specifically recited in combination in claims 2-11 is novelty over prior art.

A dynamic random access memory comprising all elements and desired functions as specifically recited in combination in claims 16-25 is novelty over prior art.

A process for dynamically adjusting the refresh rate of a dynamic random access memory array comprising all steps and desired functions as specifically recited in combination in claims 30-37 is novelty over prior art.

A process for selectively adjusting the refresh rate of a dynamic random access memory array comprising all steps and desired functions as specifically recited in combination in claims 38-44 is novelty over prior art.

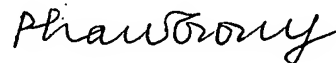
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (571) 272-1794. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMIR ZARABIAN can be reached on (571)272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TRONG PHAN
PRIMARY EXAMINER